



UNITED STATES DEPARTMENT OF COMMERCE

Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, DC 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/118,010	07/17/98	YAMAZAKI	S 0756-1838

MM61/1201  
SIXBEY FRIEDMAN LEEDOM & FERGUSON  
2010 CORPORATE RIDGE  
SUITE 600  
MCLEAN VA 22102

EXAMINER  
GUERRERO, M

ART UNIT 2822  
*3*  
PAPER NUMBER

DATE MAILED: 12/01/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

LAST AVAILABLE COPY

## Office Action Summary

Application No. <b>09/118,010</b>	Applicant(s) <b>Yamazaki et al.</b>
Examiner <b>Maria Guerrero</b>	Group Art Unit <b>2822</b>

Responsive to communication(s) filed on Jul 17, 1998.

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

### Disposition of Claims

Claim(s) 1-10 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-10 is/are rejected.

Claim(s) \_\_\_\_\_ is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been

received.

received in Application No. (Series Code/Serial Number) 08/962,840.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 2

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

Art Unit: 2822

## **DETAILED ACTION**

### ***Drawings***

1. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the application is allowed by the examiner.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

3. Claims 1, 3, and 9 rejected under 35 U.S.C. 102(e) as being anticipated by Tsumura et al. (U.S. 5,500,537) (cited by Applicant).

4. Tsumura et al. discloses a substrate 1 can be made of insulating plastics such as polyimide, and polyphenylene sulfide film (see col. 3, lines 15-20), a layer 3 provided on the substrate 1, it can be made of polymers (resinous layer it is inherent), a semiconductor layer 4 comprising low resistance polysilicon or low-resistance amorphous silicon (see col. 3, lines 22-30). Referring to

Art Unit: 2822

fig. 7, it is disclosing a substrate 11, a resinous layer 13 (it is inherent), a thin film transistor, an interlayer dielectric 16 comprising a resinous layer (it is inherent), an indium tin oxide layer 23 (see fig. 7, col. 11, lines 12-30, 49-51).

5.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2 ,4-6, 7-8, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsumura et al. (U.S. 5,500,537) (Previously applied) in view of Wakai et al. (U.S. 5,055,899).

8. Tsumura et al. does not specifically show an inverted-staggered thin film transistor (as required by claim 2), the resinous layer having a material that required by claims 4, 7, and 10.

9. Wakai et al. discloses an inverted staggered TFT, a substrate 101, a gate insulating film 103, a semiconductor film 104 comprising silicon (see col. 4, lines 15-30), an insulating film 108 can be comprising polyimide or an acrylic resin over a semiconductor layer 104 (see col. 6, lines 2-10), a transparent electrode 110 made of ITO over the insulating layer 108.

Art Unit: 2822

10. It would have been obvious to a person of ordinary skill in the art to modify Tsumura et al.'s semiconductor device by including the information provided by Tsumura et al. because it would complete a semiconductor device which the properties of the FET element could be improved.

***Claim Rejections - 35 USC § 103***

11. Claims 1, 3, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koezuka et al. (U.S. 5,107,308) (cited by Applicant)..

Koezuka et al. discloses a substrate 1 can be made of polyimide film (see col. 4, lines 23-26), an insulating layer 3 can be polyethylene (resinous layer), a semiconductor layer 41(see fig.3, col. 3, lines 50-65, col. 4, lines 50-55).

12.

***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kurachi et al. (U.S. 5,453,350) discloses polyethylene (PEN) films used as support. It is also disclosing synthetic polymeric binders such as polyacrylic acid, polymer latexes such as n-butyl acrylate, ethylene acrylate.

Art Unit: 2822

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maria Guerrero whose telephone number is (703) 305-0162. The examiner can normally be reached on Monday-Friday from 8:00 A.m. to 4:30 P.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Brown, can be reached on (703) 308-4083. The fax phone number for this Group is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

*MG*  
MG

November 19, 1998

*P. T. B.*  
Peter Toby Brown  
Supervisory Patent Examiner  
Technology Center 2800